

Remarks / Discussion of Issues

In the non-final Office Action dated April 1, 2011, it is noted that claims 1 and 3-19 are pending and stand rejected. Claims 1, 6, and 11 are independent claims.

Claim 2 was previously canceled.

No claims are amended herein.

Rejections under 35 U.S.C. §102

Claims 1, 3-5, 17, and 18 stand rejected under 35 U.S.C. §102(e) as allegedly anticipated by US Patent 7,039,412 to Sandhu et al. ("Sandhu").

Applicant respectfully submits that for at least the following reasons, Sandhu does not anticipate claims 1, 3-5, 17, and 18.

For example, claim 1, in part, requires:

determining whether the idle state or the back-off state is underway on each channel of the at least two channels that are an object of channel grouping. . . . Emphasis added.

The Office Action on page 3 appears to maintain that the clear channel assessment (CCA) process, as described in Sandhu, col. 2, line 54-col. 3, line 12, is equivalent to determining whether the idle state or the back-off state is underway on each channel of the at least two channels that are an object of channel grouping. Applicant respectfully asserts that the CCA process as presented in Sandhu is completely different from this feature of claim 1.

Sandhu relates to a method for transmitting wireless signals on multiple frequency channels for avoiding a collision in a wireless network. The Office Action points to Sandhu, col. 4, lines 17-49 for suggesting the "back-off state." However, Sandhu only suggests a legacy client device may listen to a channel as part of the CCA process to determine a duration for which the legacy device is to remain quiet to avoid packet collisions in the network. Sandhu does not discuss or suggest the claimed "back-off state."

Thus, Sandhu's process does not determine whether an idle state or a back-off state is underway. In contrast, Sandhu, col. 2, lines 57-59, discloses, before

transmitting on a channel, a wireless device will first “listen” to the channel to determine whether any other devices are currently transmitting.

Although Sandhu discloses determining whether any other devices are currently transmitting, Sandhu does not distinguish the idle state or the back-off state. Sandhu's concern is whether or not the other devices are currently transmitting. Therefore, Sandhu does not anticipate the feature of determining whether the idle state or the back-off state is underway. Accordingly, Applicant respectfully requests the withdrawal of the rejection of claim 1 under 35 U.S.C. §102(e).

Furthermore, claim 1 requires the feature of determining whether the idle state or the back-off state is underway on each channel of the at least two channels that are an object of channel grouping.

In contrast to this feature of claim 1, Sandhu appears to teach a CCA process that is performed on a single channel. For example, Sandhu, col. 2, lines 63-66 recites, “Using CCA, a wireless device will monitor the wireless channel. When a PPDU 10 (see FIG. 1) is transmitted on the channel, the wireless device will sense the PPDU. . . .” Emphasis added. Also, Sandhu col. 4, lines 40-41 recites, “The legacy PLCP preamble 26 that is transmitted within a single channel may include. . . .” Emphasis added.

Sandhu does not disclose performing channel assessments on multiple channels that are an object of channel grouping. Therefore, Sandhu does not anticipate the above features of claim 1. As such, the rejection of claim 1 under 35 U.S.C. §102(e) should be withdrawn.

Claims 3-5, 17, and 18 depend from claim 1 and include all the features of claim 1, plus additional distinguishing features. Accordingly, for at least the above reasons, Sandhu does not anticipate claims 1, 3-5, 17, and 18. Applicant respectfully requests the withdrawal of the rejection of claims 1, 3-5, 17, and 18 under 35 U.S.C. §102(e).

Rejections under 35 U.S.C. §103

Claims 6-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sandhu in view of US Patent 7,321,762 to Hoebe (‘‘Hoebe’’). Claims 11-14

stand rejected under 35 U.S.C. §103(a) over Sandhu in view of US Patent 7,289,529 to Sherman ("Sherman"). Claim 15 stands rejected over Sandhu in view of Sherman, and further in view of US Patent Publication 2005/0111402 to Sawada et al. ("Sawada"). Claim 16 stands rejected over Sandhu in view of US Patent 7,415,046 to Beckman et al. ("Beckman"). Claim 19 stands rejected over Sandhu in view of US Patent 7,272,1566 to Shoemake et al. ("Shoemake").

Applicant respectfully traverses these rejections.

Independent claim 6 is different from claim 1 and must be interpreted according to its specific recited features. For example, claim 6 includes the features of: "recognizing an idle state and a back-off state; determining whether the idle state or the back-off state is underway on a single one of the scanned channels."

Although claims 1 and 6 are different and must be interpreted on their own merit, Applicant applies the above arguments for claim 1 regarding determining whether the idle state or the back-off state is underway to the specific interpretation of claim 6.

Hoeben does not suggest the feature of determining whether the idle state or the back-off state is underway. Furthermore, the Office Action does not rely on Hoeben for the suggestion of such features. As such, Applicant respectfully submits that claim 6 is allowable over the combination of Sandhu and Hoeben and respectfully requests the withdrawal of the rejection under 35 U.S.C. 103(a).

Independent claim 11 is different from claims 1 and 6. For example, claim 11 includes the features of: "recognizing an idle state and a back-off state; determining whether the idle state or the back-off state is underway on each channel of the at least two channels to be called upon for transmission."

Although claim 11 must be interpreted on its own merits, Applicant applies the above arguments for claim 1 to the specific interpretation of claim 11. Sherman does not cure the deficiencies of Sandhu as noted above with respect to claim 1. As such, Applicant respectfully submits that claim 11 is allowable over the combination of Sandhu and Sherman, and respectfully requests the withdrawal of the rejection of independent claim 11 under 35 U.S.C. 103(a).

With respect to the remaining dependent claims, the Office Action cites additional references as noted above. However, each of dependent claims 7-10, 12-16, and 19 depends from an allowable independent base claim and inherits all of the features of the respective independent base claim.

The additional cited references do not cure the deficiencies as noted as applied to the respective independent base claim. Thus, each dependent claim is patentable for at least the same reasons discussed above with respect to its independent base claim, upon which it depends, with each dependent claim containing further distinguishing patentable features.

Conclusion

An earnest effort has been made to be fully responsive to the Examiner's correspondence and advance the prosecution of this case. In view of the foregoing, it is respectfully submitted that all the claims pending in this patent application are in condition for allowance.

If there are any errors with respect to the fees for this response or any other papers related to this response, the Director is hereby given permission to charge any shortages and credit any overcharges of any fees required for this submission to Deposit Account No. 14-1270.

Respectfully submitted,

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